REMARKS

This paper is responsive to the non-final Office Action of March 18, 2010. Reconsideration and allowance of claims 2-6, 8, 9, 11-13, 15, 16, 19, and 20 are requested.

The Office Action

Claims 1-3, 5, 7, 8, 11, 13, 14, and 21 stand rejected under 35 U.S.C. § 103 over Argiro (US 5,986,662) as modified by Kaufman (US 2004/0125103), as further modified by Buehler (US 2003/0160788).

Claims 4, 6, 9, 12, and 15-20 were indicated as containing allowable subject matter.

Claim 13 stands rejected under 35 U.S.C. § 101.

35 U.S.C. § 101

Claim 13 has been amended to call for a non-transitory computer-readable storage medium. With this amendment, it is submitted that claim 13 now complies fully with the requirements of 35 U.S.C. § 101.

The Claims Distinguish Patentably
Over the References of Record

Claim 9, which was indicated as containing allowable subject matter, has been placed in independent form. Because claim 9 was previously indicated as containing allowable subject matter, it is submitted that **claim 9 and claims 2-5, 8, 11, and 12 dependent therefrom** now distinguish patentably over the references of record.

The allowance of **claim 6** is noted with appreciation.

Claim 13 has been amended to emphasize that the rendering algorithm/parameters change along a given ray. Paragraphs [0008] and [0021] of Kaufman, referenced by the Examiner, do not cure this shortcoming of Argiro. These paragraphs of Kaufman merely indicate that each voxel which the ray intersects makes an appropriate contribution of the pixel of the 2D image. The exact nature of that contribution is set by the rendering algorithm or parameter which does not change along the ray.

Buehler fails to cure this shortcoming of Kaufman and Argiro. Paragraphs [0143]-[0145] referenced by the Examiner describe a bundle caster which advances a position of ray *bundle*. The bundle of rays advances until it reaches a preselected depth. When the bundle caster provides an individual ray **912** to a ray caster **930**, the ray caster recursively advances, i.e., casts, the ray into the volume until a collision tester **940** determines that the ray has reached a position **932** at which it impinges on an object of interest. When the ray reaches the object of interest, advancement or continued casting of the ray terminates. Thus, the rendering algorithm/parameter with which Buehler casts the ray does not change along the ray. Rather, it is submitted that Buehler uses the same rendering algorithm/parameter along the entire length of the ray. Because the ray stops casting either at a given depth or when it hits an object of interest, the casting operation is simply terminated, but there is no suggestion of changing to a different rendering algorithm/parameter.
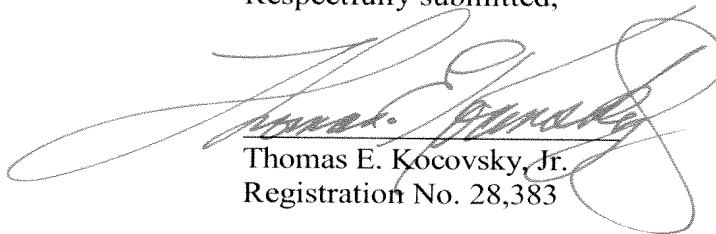
Accordingly, it is submitted that **claim 13** now distinguishes patentably and unobviously over the references of record.

Claim 15 has been placed in independent form. Claim 15 calls for the selected rendering algorithm/parameter to change rendering algorithm/parameter at least at one position along the ray. Kaufman uses a common algorithm to determine the contribution of each voxel intersected by a ray as it is cast or advances into the 3D volume. Buehler, which casts or advances the ray into the 3D volume only for a preselected distance or until it detects a collision with an object, again uses the same algorithm along the ray for whatever distance it is cast or advances. It is submitted that terminating the casting or advancement of the ray is not a change in the rendering algorithm/parameter. Accordingly, it is submitted that **claim 15 and claims 16, 19, and 20 dependent therefrom** distinguish patentably and unobviously over the references of record.

CONCLUSION

For the reasons set forth above, it is submitted that 2-6, 8, 9, 11-13, 15, 16, 19, and 20 distinguish patentably over the references of record and comply with the other statutory requirements. An early allowance of all claims is requested.

Respectfully submitted,

Thomas E. Kocovsky, Jr.
Registration No. 28,383

FAY SHARPE LLP
The Halle Building, 5th Floor
1228 Euclid Avenue
Cleveland, OH 44115-1843
Telephone: 216.363.9000 (main)
Telephone: 216.363.9122 (direct)
Facsimile: 216.363.9001
E-Mail: tkocovsky@faysharpe.com

Direct All Correspondence to:
Yan Glickberg, Reg. No. 51,742
P.O. Box 3001
Briarcliff Manor, NY 10510-8001
(440) 483-3455 (tel)
(440) 483-2452 (fax)